

Catalytic gas-phase oxidation of propene to acrylic acid

Abstract

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A process for the catalytic gas-phase oxidation of propene to acrylic acid, in which the reaction gas starting mixture is oxidized, with a high propene loading, in a first reaction stage, over a first fixed-bed catalyst which is housed in two successive reaction zones A, B, the reaction zone B being kept at a higher temperature than the reaction zone A, and the acrolein-containing product gas mixture of the first reaction stage is then oxidized in a second reaction stage, with a high acrolein loading, over a second fixed-bed catalyst which is housed in two successive reaction zones C, D, the reaction zone D being kept at a higher temperature than the reaction zone C.

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